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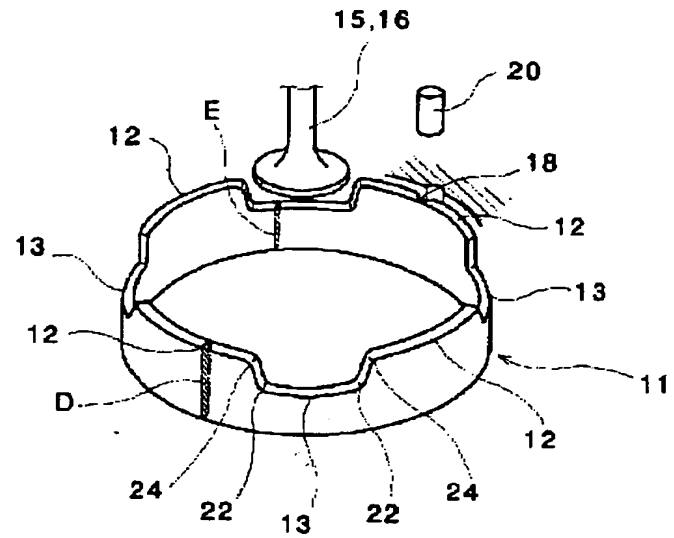
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TITLE : CROWN FIRE RING



ABSTRACT : PROBLEM TO BE SOLVED: To improve a shape and a structure of a fire ring and to prevent interference between the fire ring and intake and exhaust valves.

SOLUTION: An inner circumferential face of an upper end part of a cylinder liner of an engine, steps is circumferentially formed to which, a thin cylindrical fire ring 11 is attached. At the upper end part of the fire ring 11, four of substantially rectangular projection 12 and four of substantially rectangular recesses 13 are circumferentially formed at a predetermined interval. Appearance of a whole fire ring is like a crown. To prevent concentration of thermal stress, corners 22 and corners 24 of the recesses 13 are subjected to roundness machining (curved surface cutting). Positions where the recesses 13 are formed correspond to positions where valves (an intake valve 15 and an exhaust valve 16) are disposed. The intake valve 15 and the exhaust valve 16 are not contact with the fire ring 11, when the valves are opened or closed. Arrangement and diameters of the intake and exhaust valves 15, 16 are not restricted by the fire ring 11. Accordingly, the optimal design can be implemented depending on usage of the engine.

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